

Implementation of the Hazard, Impact, Risk, and Vulnerability (HIRV) Process

The HIRV approach to HRV analysis must ensure that the rationale for the prioritization of hazards and mitigation areas is both justifiable and easily communicated to politicians, policy makers, and the community at large. In order to promote the robustness of the HIRV approach, the following implementation guide (see Table 8) has been adapted from the Federal Emergency Management Agency's (Region 8) and the National Park Service's (Rocky Mountain Region) (1994, 8-11) *A Multi-Objective Planning Process for Mitigating Natural Hazards*. Its outline is designed to maximize the efficiency and effectiveness of group participation in multi-objective planning sessions.

Table 1: Implementation of HIRV Process

Time-Frame	Tasks:
At least six months before the first planning session	<ul style="list-style-type: none"> • Identify the area for which planning is to be done. • Find and meet with potential project partners from local, regional, state and federal government, and private organizations • Set a date and location. • Begin notifying potentially interested groups and individuals about the planning session. • Start identifying planning issues by meeting or speaking informally with local groups and individuals. • Begin area reconnaissance and logistics. • Draft a planning session agenda.
Phases	Tasks - The following steps are to be completed over several months
At least three months before the planning session:	<ul style="list-style-type: none"> • Find and invite committee members. • Find and invite recorders. • Draft guidelines for facilitator and recorders. • Find and invite a keynote speaker or emcee. • Find and invite individual members of the community. • Finalize the agenda. • Get ready to document. • Maximize public involvement. • Make sure public affairs work is under way.
At least one month before the planning session:	<ul style="list-style-type: none"> • Ensure local publicity is arranged for the first committee meeting.
The day before the planning session:	<ul style="list-style-type: none"> • Do a last-minute check. • Meet with facilitator.
First day of the planning session:	<ul style="list-style-type: none"> • Prepare the meeting place. • Follow the agenda. • Convene the introductory session. • Get committee ready to begin identifying issues. • Continue media coverage. • Become familiar with the educational material provided.

Table 1 Implementation of HIRV Process cont'd

Hazard Identification:	<ul style="list-style-type: none"> • Become familiar with the educational material provided. • Identify all potential hazards. • Attempt to identify potential multi-hazard events. • Obtain historical data on potential hazards. • Conduct field reconnaissance. • Publish and provide access to information for the community at large.
Risk Analysis:	<ul style="list-style-type: none"> • Become familiar with the educational material provided. • Eliminate all hazards for which there exists no possibility of occurrence. • Conduct field reconnaissance. • Establish the location of the potential hazard and the area of impact. • Determine whether the community is equally affected by most hazards or whether it should be divided into significant areas for comparative purposes and ease of analysis. • Review the risk factors for each hazard, using experts to justify the evaluation of risk whenever possible. • Determine the likelihood of a specific hazard occurring. • Complete the Risk Analysis recording sheet with all ratings. • Publish and provide access to information for the community at large.
Vulnerability Analysis:	<ul style="list-style-type: none"> • Become familiar with the educational material provided. • Review the vulnerability factors for each hazard and rate each factor in terms of whether or not the area is highly vulnerable. • Complete the Vulnerability Assessment recording sheet with all ratings. • Publish and provide access to information for the community at large.
Impact Analysis	<ul style="list-style-type: none"> • Become familiar with the educational material provided. • Review the ratings for vulnerability and determine and rate the social, environmental, economic, and political impacts for each hazard and area. • Complete the Impact Assessment recording sheet with all ratings • Publish and provide access to information for the community at large.
Risk Management:	<ul style="list-style-type: none"> • Become familiar with the educational material provided. • Compare the risks and impacts for all hazards and study areas. • Using the Risk Management Recording Forms determine the high and low priorities for application of mitigation strategies. • Group remaining hazards and study areas into areas of secondary priority (if desired, additional levels may be used). • Get committee ready to formulate specific aspects of its recommendations. • Publish and provide access to information for the community at large.
Prior to Initial Presentation:	<ul style="list-style-type: none"> • Have the committee revise and update its suggested solutions. • Combine the committee's written materials into a draft plan. • Make copies of the finished draft plan.
Presentation to Elected Officials and Policy Makers:	<ul style="list-style-type: none"> • Distribute copies of the draft plan. • Have experts stand by to answer questions on recommendations. • Present the draft plan to local officials. • Have a meeting of project partners. • Obtain public input through public meeting and broadcast. • Encourage public involvement. • Publish and provide access to information for the community at large.
Ongoing Sessions:	<ul style="list-style-type: none"> • Establish a monitoring system to evaluate how the recommendations are being acted upon. • Continue to update the analysis.

Source: Adapted from Federal Emergency Management Agency (Region 8) and the National Park Service (Rocky Mountain Region) (1994, 8-11)